

(d) a fragment of (a), (b), or (c), wherein the fragment has aminopeptidase activity;
and

(e) a polypeptide having physicochemical properties of (i) a pH optimum in the range of from about pH 7.27 to about pH 10.95 determined at ambient temperature in the presence of Ala-para-nitroanilide; (ii) a temperature stability of 90% or more, relative to initial activity, at pH 7.5 determined after incubation for 20 minutes at 60°C in the absence of substrate; and (iii) an ability to hydrolyze a substrate containing Ala, Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Phe, Pro, Ser, Thr, Trp, Tyr, or Val at its N-terminus;

wherein the polypeptide having aminopeptidase activity sequentially removes one amino acid residue at a time from the N-terminus of a peptide, polypeptide, or protein.

91. The polypeptide of claim 90, comprising an amino acid sequence which has at least 90% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

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cont 92. The polypeptide of claim 91, comprising an amino acid sequence which has at least 95% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

93. The polypeptide of claim 92, comprising an amino acid sequence which has at least 97% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

94. The polypeptide of claim 90, comprising the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2 or a fragment thereof.

95. The polypeptide of claim 94, comprising the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

96. The polypeptide of claim 91, which is obtained from an *Aspergillus* strain.

97. The polypeptide of claim 96, which is obtained from an *Aspergillus oryzae* strain.

98. The polypeptide of claim 90, which is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with the nucleic acid sequence of nucleotides

46 to 1488 of SEQ ID NO:1, or its complementary strand, or a subsequence thereof which encodes a polypeptide fragment which has aminopeptidase activity.

99. The polypeptide of claim 98, which is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1 or its complementary strand.

100. The polypeptide of claim 98, which is obtained from an *Aspergillus* strain.

101. The polypeptide of claim 100, which is obtained from an *Aspergillus oryzae* strain.

102. The polypeptide of claim 90, which is encoded by a nucleic acid sequence which hybridizes under high stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1, or its complementary strand, or a subsequence thereof which encodes a polypeptide fragment which has aminopeptidase activity.

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103. The polypeptide of claim 102, which is encoded by a nucleic acid sequence which hybridizes under high stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1 or its complementary strand.

104. The polypeptide of claim 102, which is obtained from an *Aspergillus* strain.

105. The polypeptide of claim 104, which is obtained from an *Aspergillus oryzae* strain.

106. The polypeptide of claim 90 having physicochemical properties of (a) a pH optimum in the range of from about pH 7.27 to about pH 10.95 determined at ambient temperature in the presence of Ala-para-nitroanilide; (b) a temperature stability of 90% or more, relative to initial activity, at pH 7.5 determined after incubation for 20 minutes at 60°C in the absence of substrate; and (c) an ability to hydrolyze a substrate containing Ala, Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Phe, Pro, Ser, Thr, Trp, Tyr, or Val at its N-terminus.

107. The polypeptide of claim 106, wherein the polypeptide has the ability to hydrolyze a substrate containing Ala, Glu, Gly, or Pro at its N-terminus.

108. The polypeptide of claim 106, which is obtained from an *Aspergillus* strain.

109. The polypeptide of claim 108, which is obtained from an *Aspergillus oryzae* strain.

110. The polypeptide of claim 90, which is encoded by the nucleic acid sequence contained in plasmid pEJG18 contained in *E. coli* NRRL B-21677.

111. A method for producing the polypeptide of claim 90 comprising (a) cultivating a strain to produce a supernatant comprising the polypeptide; and (b) recovering the polypeptide.

112. A composition comprising the polypeptide of claim 90 and a suitable carrier.

113. The composition of claim 112, wherein the polypeptide comprises an amino acid sequence which has at least 90% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

114. The composition of claim 104, wherein the polypeptide comprises an amino acid sequence which has at least 95% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

115. The composition of claim 114, wherein the polypeptide comprises an amino acid sequence which has at least 97% identity with the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

116. The composition of claim 112, wherein the polypeptide comprises the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2 or a fragment thereof.

117. The composition of claim 116, wherein the polypeptide comprises the amino acid sequence of amino acids 16 to 496 of SEQ ID NO:2.

118. The composition of claim 113, wherein the polypeptide is obtained from an *Aspergillus* strain.

119. The composition of claim 112, wherein the polypeptide is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1, or its complementary strand, or a subsequence thereof which encodes a composition fragment which has aminopeptidase activity.

120. The composition of claim 119, wherein the polypeptide is encoded by a nucleic acid sequence which hybridizes under medium stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1 or its complementary strand.

121. The composition of claim 119, wherein the polypeptide is obtained from an *Aspergillus* strain.

122. The composition of claim 112, wherein the polypeptide is encoded by a nucleic acid sequence which hybridizes under high stringency conditions with the nucleic acid sequence of nucleotides 46 to 1488 of SEQ ID NO:1, or its complementary strand, or a subsequence thereof which encodes a composition fragment which has aminopeptidase activity.

123. The composition of claim 122, wherein the polypeptide is encoded by a nucleic acid sequence which hybridizes under high stringency conditions with the nucleic acid sequence nucleotides 46 to 1488 of SEQ ID NO:1 or its complementary strand.

124. The composition of claim 122, wherein the polypeptide is obtained from an *Aspergillus* strain.

125. The composition of claim 112, wherein the polypeptide has physicochemical properties of (a) a pH optimum in the range of from about pH 7.27 to about pH 10.95 determined at ambient temperature in the presence of Ala-para-nitroanilide; (b) a temperature stability of 90% or more, relative to initial activity, at pH 7.5 determined after incubation for 20 minutes at 60°C in the absence of substrate; and (c) an ability to hydrolyze a substrate containing Ala, Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Phe, Pro, Ser, Thr, Trp, Tyr, or Val at its N-terminus.

126. The composition of claim 125, wherein the polypeptide has the ability to hydrolyze a substrate containing Ala, Glu, Gly, or Pro at its N-terminus.

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127. The composition of claim 125, wherein the polypeptide is obtained from an *Aspergillus* strain.

128. The composition of claim 127, wherein the polypeptide is obtained from an *Aspergillus oryzae* strain.

129. The composition of claim 112, wherein the polypeptide is encoded by the nucleic acid sequence contained in plasmid pEJG18 contained in *E. coli* NRRL B-21677.

REMARKS

Claims 46-89 have been canceled. New claims 90-129 have been added to solely address the 35 U.S.C. § 112 rejections and not to avoid any prior art. New claims 90-129 are pending in the present application.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Rejection of Claims 46-89 under 35 U.S.C. § 112, First Paragraph

Claims 46-89 stand rejected under 35 U.S.C. § 112, first paragraph, "as containing subject matter which was not described in the specification in such a way as to reasonably